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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,698	12/10/2001	Masanobu Sugimori	36856.586	8384
7590	11/24/2003			
Keating & Bennett LLP Suite 312 10400 Eaton Place Fairfax, VA 22030			EXAMINER BUDD, MARK OSBORNE	
			ART UNIT 2834	PAPER NUMBER

DATE MAILED: 11/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/006,698	Applicant(s) SUGIMORI ET AL.
	Examiner Mark Budd	Art Unit 2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 September 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-10 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____ .
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ .
- 4) Interview Summary (PTO-413) Paper No(s) ____ .
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi or Kugov in view of Kim (763), Kim (076) or Yoshino and combined with Chalfin.

Kugov (fig. 2) and Takahashi (fig. 1AO as well as Yoshio fig. 10, 11, 14 and 16) teach using round wire with flattened ends as lead wire piezo support structures. They do not teach the specific cup shaped flat ends. However, each of Kim (762) (figs. 1, 2, and 4-4) Yoshio (figs. 1-4, 6-10 and 17) and Kim (076) (figs. 1-3 and 5-16) teach the specific piezo engaging shape is well known as an effective connection means. Thus, for at least this reason it would have been obvious to one of ordinary skill in the art to use this holder shape on top of the round wire stock used by Takahashi, Kogov or Yoshino (figs. 10, 11, 14 and 16). Conversely, to use a round rather than rectangular lead wire for Kim or Yoshino (figs. 1-4, 6-9 and 17) as an option would have been obvious to one of ordinary skill in the art. A round cross-section is stronger for any given area compared to a relatively flat profile with an equal cross-sectional area. Further, round wire stock may be cheaper than punching out parts from flat sheet stock. Regarding the “50%” limitation as well as the specific dimensions and materials of claims 6-8, it is noted that optimization of a known device by selection of suitable materials and dimensions has long been

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held to be within the skill expected of the routinner. Also, the "50%" limitation can hardly be viewed as critical as it did not ever appear in the original set of claims. Chalfin, fig. 1 teaches a round wire terminal for supporting a piezoelectric resonator which has a portion with increased diameter (see #19, #28). This widened portion aids in assembly to set the inside height of the terminal upon insertion into the base. Thus to provide any of Takahashi, Kugov, Kim or Yoshino with a widened diameter portion for at least this reason would have been obvious to one of ordinary skill in the art.

Further cited to show increased diameter portions of lead terminals are Scott (#12b & #13b) and Fastenau (#5, #6a).


MARK A. BUDD
PRIMARY EXAMINER
ART UNIT 2834

Budd/ek

11/14/03